To: Fish, Tonya[Fish.Tonya@epa.gov]
From: Greeley, Carrie
Sent: Fri 2/14/2014 6:31:32 PM
Subject: Board Nutrient Standards Rule Making Notice and Department Nutrient Variance Rule Making Notice
CircularDEQ12A_v6.8_FINAL_clean.pdf
CircularDEQ12B_PN.pdf
17-355pro-arm.pdf
17-356pro-arm.pdf

February 14, 2014

To All Interested Parties:

Enclosed you will find two separate rulemaking notices. In one, the Board of Environmental Review (Board) is proposing rulemaking to set numeric standards for nitrogen and phosphorus concentrations in surface waters. The other rulemaking, proposed by the Department of Environmental Quality (Department), defines a process by which the numeric standards may be met over time, which will reduce the economic burden on Montana citizens compared to if compliance with the standards were required immediately. The Montana Legislature divided authority over these different rulemakings between the Board and Department, but intended that these rulemakings proceed simultaneously. For this reason you are being provided the proposed Board and Department rules, together, in the same mailing.

It has been documented that nitrogen and phosphorus compounds rank among the top ten most common types of pollution in Montana's flowing waters. The proposed standards will control the undesirable effects of eutrophication – the enrichment of a waterbody by nitrogen and phosphorus, which leads to increased plant and algal growth and decay – and all the changes to water quality that occur as a result. The proposed standards will protect fish and aquatic life uses and recreation uses from eutrophication impacts. The standards will also aide agricultural and drinking water uses by reducing filamentous algae, which clogs irrigation and water-intake structures in eutrophied streams.

The standards are scientifically derived and peer reviewed. However, because the concentrations are low in relation to typical wastewater treatment technologies of today, the standards will prove difficult for many dischargers to implement using today's technology. To address these concerns, the Department has been working since 2008 with affected stakeholders (municipalities, industries, agriculture, environmental interests, etc.). This outreach created new legislation describing temporary variances, which allow time (up to 20 years) for technologies to advance and alternative effluent and nonpoint source management methods to be considered and implemented. These laws are codified at 75-5-313, MCA. The Department rulemaking implements this variance process.

The Department will hold a public hearing on the proposed variance rule on March 24, 2014, in Room 111 of the Metcalf Building, 1520 E. Sixth Ave., Helena, Montana. The Department hearing will begin at 10:00 a.m. The Board will hold a hearing on the proposed nitrogen and phosphorus standards at 2:00 p.m. on the same day at the

same location. An informal question and answer session on both rule packages will be held from 9:00 a.m. to 10:00 a.m. on the same day at the same location. The comment period for each rulemaking runs until April 1, 2014. Information on submitting comments is found in each notice. Please note that the persons designated to receive the comments are different. Comments on the variance rulemaking must be submitted at the first hearing or sent to Carrie Greeley; if provided by E-mail, please use deqwqpadmin@mt.gov. Comments on the standards rulemaking must be submitted at the second hearing or sent to Elois Johnson; if provided by E-mail, please use ejohnson@mt.gov.

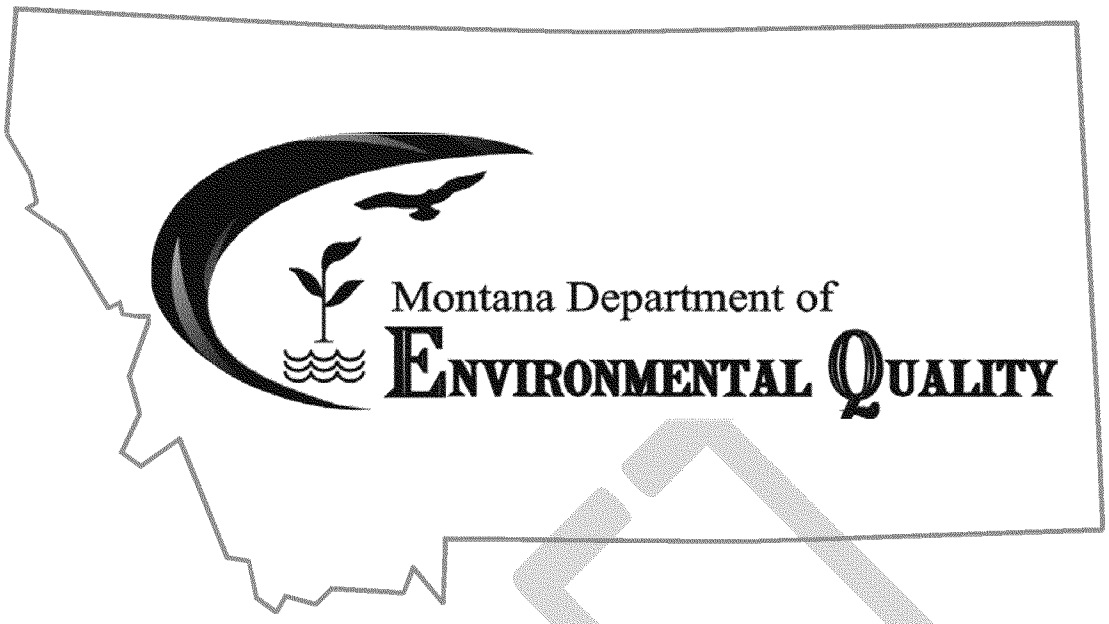
Sincerely,

Eric Urban

Water Quality Standards Section Supervisor

Enclosures: Standards Rule Notice (Board of Environmental Review) and Circular DEQ-12A

Variance Rule Notice (Department of Environmental Quality) and Circular DEQ-12B



DEPARTMENT CIRCULAR

DEQ-12A

Montana Base Numeric Nutrient Standards

GENERAL INTRODUCTION

This circular (DEQ-12A) contains information pertaining to the base numeric nutrients standards (§75-5-103(2), MCA) and their implementation. This information includes the standards' concentration limits, where the standards apply, and their period of application. DEQ-12A is adopted by the Board of Environmental Review under its rulemaking authority in §75-5-301(2), MCA.

Circular DEQ-12B contains information about variances from the base numeric nutrient standards and is a separate document available from the Department. DEQ-12B addresses effluent treatment requirements associated with general nutrient standards variances, as well as effluent treatment requirements for individual nutrient standards variances and to whom these apply. Unlike DEQ-12A, DEQ-12B is not adopted by the Board of Environmental Review; DEQ-12B is adopted by the Department following its formal rulemaking process, pursuant to §75-5-313, MCA.

The Department has reviewed a considerable amount of scientific literature and has carried out scientific research on its own in order to derive the base numeric nutrient standards (see **References** in this circular). Because many of the base numeric nutrient standards are stringent and may be difficult for MPDES permit holders to meet in the short term, Montana's Legislature adopted laws (e.g., §75-5-313, MCA) allowing for the achievement of the standards over time via the variance procedures in Circular DEQ-12B. This approach should allow time for nitrogen and phosphorus removal technologies to improve and become less costly and to allow time for nonpoint sources of nitrogen and phosphorus pollution to be better addressed.

Circular DEQ-12A

DECEMBER 2013 EDITION

1.0 Introduction

Elements comprising Circular DEQ-12A are found below. These elements are adopted by the Montana Board of Environmental Review. The nitrogen and phosphorus concentrations provided here have been set at levels that will protect beneficial uses and prevent exceedences of other surface water quality standards which are commonly linked to nitrogen and phosphorus concentrations (e.g., pH and dissolved oxygen; see Circular DEQ-7 for those standards). The nitrogen and phosphorus concentrations provided here also reflect the intent of the narrative standard at ARM 17.30.637(1)(e) and will preclude the need for case-by-case interpretations of that standard in most cases.

1.1 Definitions

1. **Ecoregion** means mapped regions of relative homogeneity in ecological systems derived from perceived patterns of a combination of causal and integrative factors including land use, land surface form, potential natural vegetation, soils, and geology. See also Endnote 1.

2. **Large river** means a perennial waterbody which has, during summer and fall baseflow (August 1 to October 31 each year), a wadeability index (product of river depth [in feet] and mean velocity [in ft/sec]) of 7.24 ft^2/sec or greater, a depth of 3.15 ft or greater, or a baseflow annual discharge of 1,500 ft^3/sec or greater. See also, Endnote 6.

3. **Total nitrogen** means the sum of all nitrate, nitrite, ammonia, and organic nitrogen, as N, in an unfiltered water sample. Total nitrogen in a sample may also be determined via persulfate digestion or as the sum of total kjeldahl nitrogen plus nitrate plus nitrite.

4. **Total phosphorus** means the sum of orthophosphates, polyphosphates, and organically bound phosphates, as P, in an unfiltered water sample. Total phosphorus may also be determined directly by persulfate digestion.

5. **Wadeable stream** means a perennial or intermittent stream in which most of the wetted channel is safely wadeable by a person during baseflow conditions.

2.0 Base Numeric Nutrient Standards

Table 12A-1 contains the base numeric nutrient standards for Montana's flowing waters. In **Table 12A-1** nutrient standards for wadeable streams are grouped by ecoregion, either at level III (coarse scale) or level IV (fine scale). Following the ecoregional standards is a list of wadeable streams with reach-specific standards. These waterbodies have characteristics disimilar from those of the ecoregions in which they reside and have therefore been provided reach-specific values. **For wadeable streams, the standards should be applied in this order: named stream reach first (if applicable) then level IV ecoregion (if applicable) then level III ecoregion. Table 12A-1** also contains a list of large river segments for which base numeric nutrient standards have been developed. Note that the ecoregional values in **Table 12A-1** do not apply to large rivers within those ecoregions. See Endnote 6 for a list of all large Montana rivers. If a particular large river reach is not listed in **Table 12A-1**, standards for it have not yet been developed.

Table 12A-2 contains base numeric nutrient standards for Montana's lakes and reservoirs. The Department has not yet developed regional lake criteria, but it is expected that when they are developed they will be grouped by ecoregion. As such, placeholders for future ecoregionally-based criteria are provided in the table. The table also provides lake-specific standards. The Department anticipates that reservoir standards will generally be developed case-by-case and, therefore, will be individually listed, as provided for in the table.

Table 12A-1. Base Numeric Nutrient Standards for Wadeable Streams in Different Montana Ecoregions. If standards have been developed for level IV ecoregions (subcomponents of the level III ecoregions) they are shown in italics below the applicable level III ecoregion. Individual reaches are in the continuation of this table.

			Numeric Nutrient Standard[4]	
Ecoregion[1,2] (level III or IV) and Number	Ecoregion Level	Period When Criteria Apply[3]	Total Phosphorus (µg/L)	Total Nitrogen (µg/L)
Northern Rockies (15)	III	July 1 to September 30	25	275
Canadian Rockies (41)	III	July 1 to September 30	25	325
Idaho Batholith (16)	III	July 1 to September 30	25	275
Middle Rockies (17)	III	July 1 to September 30	30	300
Absaroka-Gallatin Volcanic Mountains (17i)	IV	July 1 to September 30	105	250
Northwestern Glaciated Plains (42)	III	June 16 to September 30	110	1300
Sweetgrass Upland (42l), Milk River Pothole Upland (42n), Rocky Mountain Front Foothill Potholes (42q), and Foothill Grassland (42r)	IV	July 1 to September 30	80	560
Northwestern Great Plains (43) and Wyoming Basin (18)	III	July 1 to September 30	150	1300
River Breaks (43c)	IV	See Endnote 5	See Endnote 5	See Endnote 5
*Non-calcareous Foothill Grassland (43s), Shields-Smith Valleys (43t), Limy Foothill Grassland (43u), Pryor-Bighorn Foothills (43v), and Unglaciated Montana High Plains (43o)**	IV	July 1 to September 30	33	440

*For the Unglaciated High Plains ecoregion (43o), criteria only apply to the polygon located just south of Great Falls, MT.

[1] See Endnote 1

[2] See Endnote 2

[3] See Endnote 3

[4] See Endnote 4

Table 12A-1, Continued. Base Numeric Nutrient Standards for Individual Wadeable Streams (and Wadeable-stream Reaches), and Large-river Reaches.

Individual Stream or Reach Description[2]	Period When Criteria Apply[3]	Numeric Nutrient Standard[4]	
		Total Phosphorus (µg/L)	Total Nitrogen (µg/L)
Wadeable Streams: Clark Fork River basin			
Flint Creek, from Georgetown Lake outlet to the ecoregion 17ak boundary (46.4002, -113.3055)	July 1 to September 30	72	500
Wadeable Streams: Gallatin River basin			
Bozeman Creek, from headwaters to Forest Service Boundary (45.5833, -111.0184)	July 1 to September 30	105	250
Bozeman Creek, from Forest Service Boundary (45.5833, -111.0184) to mouth at East Gallatin River	July 1 to September 30	76	270
Hyalite Creek, from headwaters to Forest Service Boundary (45.5833,-111.0835)	July 1 to September 30	105	250
Hyalalite Creek, from Forest Service Boundary (45.5833,-111.0835) to mouth at East Gallatin River	July 1 to September 30	90	260
East Gallatin River between Bozeman Creek and Bridger Creek confluences	July 1 to September 30	50	290
East Gallatin River between Bridger Creek and Hyalite Creek confluences	July 1 to September 30	40	300
East Gallatin River between Hyalite Creek and Smith Creek confluences	July 1 to September 30	60	290
East Gallatin River from Smith Creek confluence mouth (Gallatin River)	July 1 to September 30	40	300
Large Rivers[6]:			
Yellowstone River (Bighorn River confluence to Powder River confluence)	August 1 -October 31	55	655
Yellowstone River (Powder River confluence to stateline)	August 1 -October 31	95	815

[2] See Endnote 2

[3] See Endnote 3

[4] See Endnote 4

[6] See Endnote 6

Table 12A-2. Base Numeric Nutrient Standards and Other Standards for Lakes and Reservoirs.

		Numeric Nutrient Standard[7]		
Ecoregion[1] (level III) and Number, or Individual Lake or Reservoir Description	**Period of Application**	**Total Phosphorus (µg/L)**	**Total Nitrogen (µg/L)**	**Other Standards[8]**
LAKES/RESERVOIRS by ecoregion:				
Middle Rockies (17)	Year-round	[]	[]	
Northern Rockies (15)	Year-round	[]	[]	
Canadian Rockies (41)	Year-round	[]	[]	
Idaho Batholith (16)	Year-round	[]	[]	
LAKE SPECIFIC CRITERIA:				
Flathead Lake[9]	Year-round	5.0	95	Secchi depth ≥ 10.4 m during non turbidity-plume conditions. Phytoplankton chlorophyll *a* 1.0 µg/L, as an annual average, not to be exceeded more than once in any three year period, on average.
RESERVOIR SPECIFIC CRITERIA:				
	Year-round	[]	[]	

[1] See Endnote 1 [9] See Endnote 9

[7] See Endnote 7

[8] See Endnote 8

2.1 Required Reporting Values for Base Numeric Nutrient Standards

Table 12A-3 presents the required reporting values (RRVs) for total phosphorus and total nitrogen, as well as the RRVs for nitrogen fractions that can be used to compute total nitrogen.

Table 12A-3. Required reporting values[a,b] for total nitrogen and phosphorus measurements.

Nutrient		Method of Measurement	Required Reporting Value
Total phosphorus		Persulfate digestion	3 µg/L
Total nitrogen		Persulfate digestion	70 µg/L
Total nitrogen	Sum of:	(a) total kjeldahl nitrogen	150 µg/L
		(b) nitrate + nitrite	See RRVs below
Nitrate- as N			20 µg/L
Nitrite- as N			10 µg/L
Nitrate + Nitrite-as N			20 µg/L

[a] See definition for required reporting values found in footnote 19 of Department Circular DEQ-7.

[b] Concentrations in Table 12A-3 must be achieved unless otherwise specified in a permit, approval, or authorization issued by the Department (DEQ-7; ARM 17.30.702).

2.2 Developing Permit Limits for Base Numeric Nutrient Standards

For total nitrogen and total phosphorus, the critical low-flow for the design of disposal systems shall be based on the seasonal 14Q5 of the receiving water (ARM 17.30.635(2)). When developing permit limits for base numeric nutrient standards, the Department will use an average monthly limit (AML) only, using methods appropriate for criterion continuous concentrations (i.e., chronic concentrations). Permit limits will be established using a value corresponding to the 95th percentile probability distribution of the effluent. Nitrogen and phosphorus concentrations of the receiving waterbody upstream of the discharge may be characterized using other frequency distribution percentiles. The Department shall use methods that are appropriate for criterion continuous concentrations which are found in the document "*Technical Support Document for Water Quality-based Toxics Control*," Document No. EPA/505/2-90-001, United States Environmental Protection Agency, 1991.

3.0 Endnotes

(1) Ecoregions are based on the 2009 version (version 2) of the U.S. Environmental Protection Agency maps. These can be found at: http://www.epa.gov/wed/pages/ecoregions/mt_eco.htm . For Geographic Information System (GIS) use within the Department, the GIS layers may be found at: L:\DEQ\Layers\Ecoregions.lyr

(2) Within and among the geographic regions or watersheds listed, base numeric nutrient standards of the downstream reaches or other downstream waterbodies must continue to be maintained. Where possible, modeling methods will be utilized to determine the limitations required which provide for the attainment and maintenance of water quality standards of downstream waterbodies.

(3) For the purposes of ambient surface water monitoring and assessment only, a ten-day window (plus/minus) on the beginning and ending dates of the period when the criteria apply is allowed in order to accommodate year-specific conditions (an early-ending spring runoff, for example).

(4) The 30 day average concentration of these parameters may not be exceeded more than once in any five-year period, on average.

(5) In this level IV ecoregion, the narrative standard for nuisance aquatic life (ARM 17.30.637(1)(e)) applies in lieu of specific base numeric nutrient standards.

(6) **Table E-1** below shows the beginning and ending locations for large rivers in Montana.

Table E-1. Large river segments within the state of Montana.

River Name	Segment Description
Big Horn River	Yellowtail Dam to mouth
Clark Fork River	Bitterroot River to state-line
Flathead River	Origin to mouth
Kootenai River	Libby Dam to state-line
Madison River	Ennis Lake to mouth
Missouri River	Origin to state-line
South Fork Flathead River	Hungry Horse Dam to mouth
Yellowstone River	State-line to state-line

(7) No lake or reservoir in **Table12A-2** shall have a total nutrient concentration that exceeds the values shown, as an annual average, more than once in any three year period, on average. The Department will determine on a case-by-case basis whether or not a permitted discharge to a stream or river is likely to be affecting any downstream lake or reservoir. If so, the permittee would be required to meet its average monthly nutrient limit year-round.

(8) Parameters listed under this column are standards specific to lakes and reservoirs.

(9) Standards and related assessment information (excluding Secchi depth) are to be determined from 0-30 m depth-integrated samples. Samples and Secchi depth measurements are to be collected at the Midlake Deep site which is located approximately 1 mile west of Yellow Bay Point in a pelagic area of the lake (approximately at latitude 47.861, longitude -114.067).

4.0 References

The following are citations for key scientific and technical literature used to derive the base numeric nutrient standards. This is not a complete list; rather, it contains the most pertinent citations. Many other articles and reports were reviewed during the development of the standards.

Biggs, B.J.F., 2000. New Zealand Periphyton Guideline: Detecting, Monitoring and Managing Enrichment in Streams. Prepared for the New Zealand Ministry of the Environment, Christchurch, 122 p.

Dodds, W.K., V.H. Smith, and B. Zander, 1997. Developing Nutrient Targets to Control Benthic Chlorophyll Levels in Streams: A Case Study of the Clark Fork River. Water Research 31: 1738-1750.

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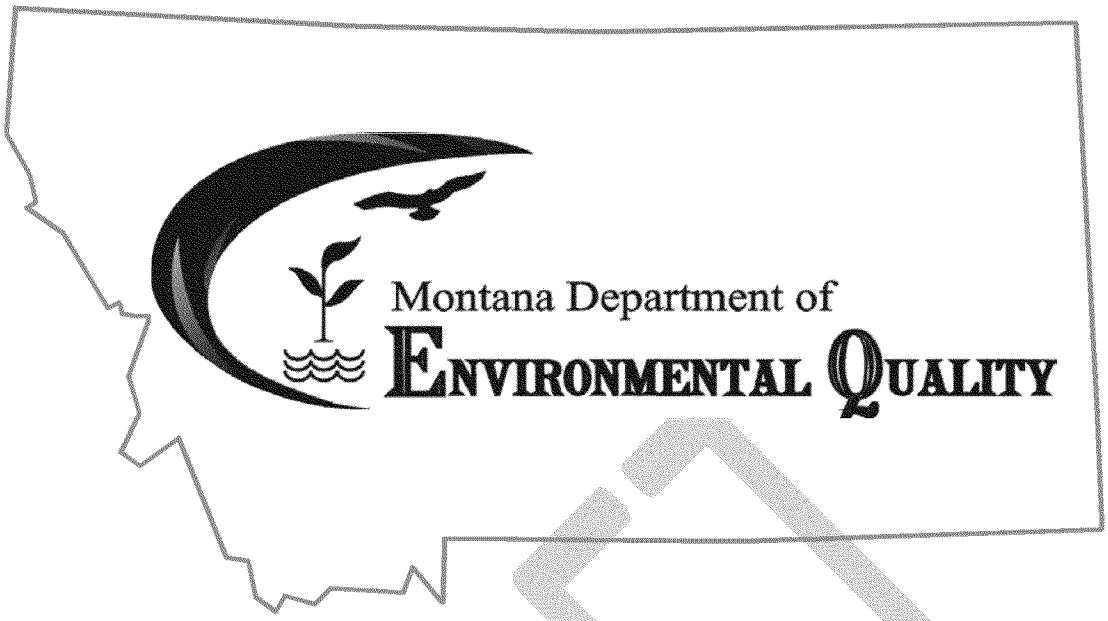

DEPARTMENT CIRCULAR

DEQ-12B

Nutrient Standards Variances

GENERAL INTRODUCTION

This circular (DEQ-12B) contains information about variances from the base numeric nutrient standards. This information includes details on effluent treatment requirements associated with general nutrient standards variances, as well as effluent treatment requirements for individual nutrient standards variances and to whom they apply.

Circular DEQ-12A contains the base numeric nutrient standards' concentration limits, where the standards apply, and their period of application. Circular DEQ-12A is in a separate document also available from the Department. Circular DEQ-12A is adopted by the Board of Environmental Review under its rulemaking authority in §75-5-301(2), MCA. Unlike DEQ-12A, DEQ-12B (this circular) is not adopted by the Board of Environmental Review. DEQ-12B is adopted by the Department following its formal rulemaking process, pursuant to §75-5-313, MCA.

The Department has reviewed a considerable amount of scientific literature and has carried out scientific research on its own in order to derive the base numeric nutrient standards (see References in DEQ-12A). Because many of the base numeric nutrient standards are stringent and may be difficult for MPDES permit holders to meet in the short term, Montana's Legislature adopted laws (e.g., §75-5-313, MCA) allowing for the achievement of the standards over time via the variance procedures found here in Circular DEQ-12B. This approach should allow time for nitrogen and phosphorus removal technologies to improve and become less costly, and to allow time for nonpoint sources of nitrogen and phosphorus pollution to be better addressed.

Circular DEQ-12B

(Month of Adoption) 2014 EDITION

1.0 Introduction

Elements comprising Circular DEQ-12B are found below. These elements are adopted by the Department following the Department's formal rulemaking process. Montana state law (§75-5-103 (22), MCA and 75-5-313, MCA) allows for variances from the base numeric nutrient standards (found in Circular DEQ-12A) based on a determination that the base numeric nutrient standards cannot be achieved because of economic impacts, the limits of technology, or both.

1.1 Definitions

1. **Monthly average** means the sum of the daily discharge values during the period in which the base numeric nutrient standard applies divided by the number of days in the sample. See also, "*Technical Support Document for Water Quality-based Toxics Control*," Document No. EPA/505/2-90-001, United States Environmental Protection Agency, 1991.

2.0 General Nutrient Standards Variances

Because the treatment of wastewater to base numeric nutrient standards in 2011 would have resulted in substantial and widespread economic impacts on a statewide basis (§75-5 -313 (5)(a), MCA), a permittee who meets the end-of-pipe treatment requirements provided below in **Table 12B-1** may apply for and the Department shall approve a general nutrient standards variance ("general variance") (§75-5 -313(5)(b), MCA). The requirements in **Table 12B-1** expire on July 1, 2017. Those requirements may be extended without modification or modified and extended in a rulemaking proceeding conducted by the Department. The Department will process the general variance request through the discharge permit and include information on the period of the variance and the interim requirements. A person may apply for a general variance for either total phosphorus or total nitrogen, or both. The general variance may be established for a period not to exceed 20 years. A compliance schedule to meet the treatment requirements shown in **Table 12B-1** may be granted on a case-by-case basis. The final permit limit will be expressed as a load only.

Cases will arise in which a permittee is or will be discharging effluent with nitrogen and/or phosphorus concentrations lower than (i.e., better than) the minimum requirements of a general variance, but the resulting concentrations outside of the mixing zone still exceed the base numeric nutrient standards. Such permitted discharges are still within the scope of the general variance, because the statute contemplates that a general variance is allowable if the permittee treats the discharge to, **at a minimum**, the concentrations indicated by §75-5-313(5)(b)(i)and (ii), MCA. Thus, permitted discharges better than those at §75-5-313(5)(b)(i)and (ii), MCA, are not precluded from falling under a general variance. In a permitted discharge, the interim limits provided for under a general variance (or an

individual variance) will apply, even if such limits differ from those that might otherwise apply based on a wasteload allocation derived in a Total Maximum Daily Load (TMDL). The interim limits will apply during the time period over which the variance is applicable.

Table 12B-1. General variance end-of-pipe treatment requirements.

	Monthly Average	
Discharger Category[1]	**Total P (µg/L)**	**Total N (µg/L)**
≥ 1.0 million gallons per day	1,000	10,000
< 1.0 million gallons per day	2,000	15,000
Lagoons not designed to actively remove nutrients	Maintain current performance	Maintain current performance

[1] See Endnote 1

The Department must review the general variance treatment requirements every three years to assure that the justification for their adoption remains valid. The review may not take place before June 1, 2016, and must occur triennially thereafter. The purpose of the review is to determine whether there is new information that supports modifying (e.g., revising the interim effluent treatment requirements) or terminating the variance. If a low-cost technological innovation for lowering nitrogen and phosphorus concentrations in effluent were to become widely available in the near future, for example, the Department could (after May 2016) make more stringent the concentrations shown in **Table 12B-1**. If, after May 2016, the Department were to adopt general variance treatment requirements more stringent than those provided in **Table 12B-1**, revised effluent limits will be included with the permit during the next permit cycle, unless the demonstrations discussed in **Section 3.0** below are made. A compliance schedule may also be granted to provide time to achieve compliance with revised effluent limits.

The Department (and the Nutrient Work Group) will consider whether or not more cost-effective and efficient treatment technologies are available when determining whether the general variance treatment requirements must be updated in accordance with §75-5-313(7)(a) and (b), MCA. The review will occur triennially and will be carried out at a state-wide scale, i.e., the Department will consider the aggregate economic impact to dischargers within a category (the > 1 MGD category, for example).

Based on the triennial review preliminary findings and conclusions, the Department will issue a solicitation for public comment on the nutrient concentrations and conditions associated with the three general variance categories. The proposal will solicit comments from the public on whether the general variances should be: (1) extended without modification, (2) modified and extended, or (3) allowed to expire. Based on the review conclusions and the public comment, the Department will draft final

findings and conclusions and will initiate rulemaking if it determines that the variances should be extended, with or without modification.

2.1 Wastewater Facility Optimization Study

Permitees receiving a general variance are required to evaluate current facility operations in order to optimize nutrient reduction with existing infrastructure and shall analyze cost-effective methods of reducing nutrient loading including, but not limited to, nutrient trading without substantial investment in new infrastructure (§75-5-313(9)(a), MCA). The Department encourages permittees to examine a full array of reasonable options including, but not limited to, facility optimization, reuse, recharge, and land application. The Department may request the results of the optimization/nutrient reduction analysis within two years of granting a general variance to a permittee.

Changes to facility operations resulting from the analysis carried out as above are only intended to be refinements to the wastewater treatment system already in place. Therefore, optimizations:

1. should only address changes to facility operation and maintenance and should not be structural changes;
2. should not result in rate increases or substantial investment; and
3. must include exploration of the feasibility of nutrient trading within the watershed.

How the analysis is to be conducted, and by whom, is left to the discretion of the permittee. The Department encourages the use of a third-party firm with expertise in this subject.

3.0 Individual Nutrient Standards Variances

The following sections describe (1) the basis for an individual variance, and (2) an alternate method for deriving appropriate interim effluent limits for an individual discharger. For both of these types of individual variances, the final permit limit will be expressed as a load only.

3.1 Individual Variance Based on Substantial and Widespread Economic Impacts

Montana law allows for the granting of nutrient standards variances based on the particular economic and financial situation of a permittee (§75-5-313(1), MCA). Individual nutrient standards variances ("individual variances") may be granted on a case-by-case basis because the attainment of the base numeric nutrient standards is precluded due to economic impacts, limits of technology, or both. Individual variances discussed in this section are generally intended for permittees who would have financial difficulties meeting the general variance concentrations and are seeking individual nitrogen and phosphorus permit limits tailored to their specific economic situation.

Like the general variance in **Section 2.0**, individual variances may be established for a period not to exceed 20 years and must be reviewed by the Department every three years to ensure that their justification remains valid. Unlike the general variances discussed in **Section 2.0**, the Department will

only grant an individual variance to a permittee after the permittee has made a demonstration to the Department that meeting the underlying standards would require water quality-based controls that result in substantial and widespread social and economic impacts. The variance application will identify the lowest effluent concentration that is feasible based on achieving the highest attainable condition. A permittee, using the assessment process referred to above, must also demonstrate to the Department that there are no reasonable alternatives including, but not limited to, trading, compliance schedules, reuse, recharge, and land application that would allow compliance with the base numeric nutrient standards. If no reasonable alternatives exist, then an individual variance is justifiable and becomes effective and may be incorporated into a permit following the Department's formal rulemaking process. Like any variance, individual variances must be adopted as revisions to Montana's standards and submitted to EPA for approval. Individual variances the Department may adopt in the future will be documented in **Table 12B-2** below.

Since the basis of this type of individual variance is related to the economic status of a community or permittee, at each triennial review the Department will consider if the basic economic status of that community or permittee has substantially changed. The same parameters used to justify the original individual variance will be considered. If new, low-cost nutrient removal technologies have become widely available, or if the economic status of the community or permittee has sharply improved, the basis of the variance may no longer be justified. In such cases the Department will discuss with the permittee the options going forward including, but not limited to, a permit compliance schedule, trading, reuse, recharge, land application, or a general variance.

Based on the triennial review preliminary findings and conclusions, the Department will issue a solicitation for public comment on the individual variances. The proposal will solicit comments from the public on whether each variance should be: (1) re-adopted without changes, (2) re-adopted with changes, or (3) terminated. Based on the review conclusions and public comment, the Department will draft final findings and conclusions. If the findings and conclusions indicate that the variance(s) should be modified or terminated, the Department will initiate rulemaking to do so.

3.2 Individual Variance Effluent Limits Based on Site-specific Water Quality Modeling

Generally, the interim effluent limits in any variance, general or individual, will be based on achieving the highest attainable condition within the receiving water. In some cases a permittee may be able to demonstrate, using water quality modeling and reach-specific data, that greater emphasis on reducing one nutrient (target nutrient) will achieve the highest attainable condition, since it would produce comparable water quality and biological conditions in the receiving water as could be achieved by emphasizing the equal reduction of both nutrients (i.e., both nitrogen and phosphorus). Requiring such a permittee to immediately install sophisticated nutrient-removal technologies to reduce the non-target nutrient to levels as stringent as what is in statute at §75-5-313(5)(b), MCA, would not be the most prudent nutrient control expenditure and could cause the discharger to incur unnecessary economic expense. In such a case, the interim effluent limits for the individual discharger may be adjusted to reflect greater emphasis on controlling one of the parameters, so long as the highest attainable

condition is maintained within the receiving water. The permittee will be required to submit the demonstration with the proposed interim effluent limits to the Department for review and will be required to provide monitoring water quality data that can be used to determine if the justifications for the interim effluent limits continue to hold true (i.e., status monitoring). Because status can change, for example due to substantive nonpoint source cleanups upstream of the discharger, status monitoring by the discharger is required.

The nutrient concentrations identified via this modeling may eventually be adopted as site-specific standards under the Board of Environmental Review's rulemaking authority in §75-5-301(2), MCA, but would require an analysis of their downstream effects prior to adoption.

Table 12B-2. Table for individual variances that may be adopted.

MPDES Number	Facility Name	Discharge Latitude	Discharge Longitude	Receiving Waterbody	Receiving Waterbody Classification	Monthly Average		Start Date	Sunset Date (maximum)	Review Schedule (year)	Review Outcome
						Total P (µg/L)	Total N (µg/L)				

4.0 Endnotes

(1) Based on facility design flow.

BEFORE THE DEPARTMENT OF ENVIRONMENTAL QUALITY
OF THE STATE OF MONTANA

In the matter of the adoption of new rule I pertaining to nutrient standards variances	))))	NOTICE OF PUBLIC HEARING ON PROPOSED ADOPTION (WATER QUALITY)

TO: All Concerned Persons

1. On March 24, 2014, at 10:00 a.m., the Department of Environmental Quality will hold a public hearing in Room 111 of the Metcalf Building, 1520 E. Sixth Ave., Helena, Montana, to consider the proposed adoption of the above-stated rule. Immediately preceding the hearing at 9:00 a.m. at the same location, the department will hold an informal question and answer session regarding this rulemaking and MAR Notice No. 17-356, which is the Board of Environmental Review's proposed adoption of numeric nutrient standards.

2. The department will make reasonable accommodations for persons with disabilities who wish to participate in this public hearing or need an alternative accessible format of this notice. If you require an accommodation, contact Elois Johnson, Paralegal, no later than 5:00 p.m., March 10, 2014, to advise us of the nature of the accommodation that you need. Please contact Elois Johnson at Department of Environmental Quality, P.O. Box 200901, Helena, Montana 59620-0901; phone (406) 444-2630; fax (406) 444-4386; or e-mail ejohnson@mt.gov.

3. The proposed new rule provides as follows:

NEW RULE I NUTRIENT STANDARDS VARIANCES (1) A person may apply to the department for a nutrient standards variance at any time following the board's adoption of base numeric nutrient standards. In addition to this rule, variances are subject to the procedures and requirements contained in Department Circular DEQ-12B ([month of adoption] 2014 edition).

(2) An application for a general variance must provide information demonstrating that the wastewater treatment facility meets the requirements of Department Circular DEQ-12B ([month of adoption] 2014 edition). The decision to grant the general variance must be reflected in the permit that is made available for public comment.

(3) An application for an individual variance must adequately demonstrate that there are no reasonable alternatives that eliminate the need for a variance and that attainment of the base numeric nutrient standards is precluded due to economic impacts or limits of technology, or both. If the demonstration relies upon economic impacts, the department shall consider any guidance developed by the department and the nutrient work group, as provided in 75-5-313(2), MCA.

(4) The department may approve the adoption of an individual variance that specifies interim effluent limits different from those contained in general variance limits contained in Department Circular DEQ-12B ([month of adoption] 2014 edition),

if water quality modeling demonstrates that greater emphasis on the reduction of one nutrient may achieve similar water quality and biological improvements as would the equal reduction of both nitrogen and phosphorus. The variance must provide effluent limits that reflect the lowest effluent concentration that is feasible based on achieving the highest attainable condition for the receiving water. A person shall submit the proposed effluent limits and supporting data in an application for an individual nutrient variance under (3). A person who has an individual variance with effluent limits that are based on this section shall, in each subsequent triennial review of those limits conducted pursuant to 75-5-313(7), MCA, collect and submit water quality data to demonstrate whether the biological status of the receiving water continues to justify those effluent limits.

(5) The department shall review each application for an individual variance to determine whether a reasonable alternative, such as trading, a permit compliance schedule, a general variance, reuse, recharge, or land application would eliminate the need for an individual variance. If the department makes a preliminary finding that a reasonable alternative to approving an individual variance is available, the department shall consult with the applicant prior to making a final decision to approve or deny the individual variance.

(6) If, after consultation with the applicant, the department determines that no reasonable alternative to an individual variance exists, the department shall determine whether the information provided by the applicant pursuant to (3) adequately demonstrates that attaining the base numeric nutrient standards is not feasible. If the department finds that attaining the base numeric nutrient standards is not feasible, the department shall approve an individual variance, which will become effective and incorporated into the applicant's permit only after adoption by the department in a formal rulemaking proceeding.

(7) A variance is not needed in situations where a person complies with the waste load allocation established in an approved TMDL.

(8) The department adopts and incorporates by reference Department Circular DEQ-12B, entitled "Nutrient Standards Variances" ([month of adoption] 2014 edition), which provides procedures and requirements for nutrient standards variances. Copies of Department Circular DEQ-12B are available at the Department of Environmental Quality, 1520 East 6th Avenue, P.O. Box 200901, Helena, MT 59620-0901.

AUTH: 75-5-201, 75-5-301, MCA
IMP: 75-5-313, MCA

REASON: The Board of Environmental Review is initiating rulemaking to adopt base numeric nutrient standards. The nutrient concentrations being proposed are generally low, particularly in the western region of Montana. In many cases, the concentrations are below the limits of current wastewater treatment technology, particularly for nitrogen. Therefore, when little or no stream dilution is available, dischargers will find it difficult or impossible to meet the standards. Senate Bill 95 (2009 Legislature) and Senate Bill 367 (2011 Legislature), now codified at 75-5-313, MCA, addressed the high cost and technological difficulties associated with meeting the nutrient standards in the short term. That statute allows dischargers to be

granted variances from base numeric nutrient standards in those cases where meeting the standards today would be an unreasonable economic burden or technologically infeasible. Variances from the standards may be granted for up to 20 years. Thus, 75-5-313, MCA, allows for the base numeric nutrient standards to be met in a staged manner over time, as alternative effluent management methods are considered, nutrient removal technologies become more cost-effective and efficient, and nonpoint sources of nutrients are addressed. New Rule I, which incorporates proposed Department Circular DEQ-12B (DEQ-12B), is being proposed to implement 75-5-313, MCA. New Rule I and DEQ-12B provide a process for granting variances and factors that the department will consider when deciding whether a person may be granted an individual nutrient standards variance.

New Rule I(1) makes clear that variances are available only after the time that the board adopts base numeric nutrient standards. The department is required to adopt the statute-defined general variance categories and their associated concentrations and conditions into department rule by May 31, 2016. This rulemaking adopts those concentrations. After that date, the concentrations and conditions associated with each category may be modified by the department in a rulemaking proceeding.

New Rule I(2) merely reflects the procedural requirement contained in 75-5-313, MCA.

New Rule I(3) requires the applicant to explore alternatives to discharging that may preclude the need for an individual variance. This implements 75-5-313(3), MCA.

New Rule I(4) addresses the situation in which water quality modeling for a river or stream segment indicates that greater reduction of one nutrient can achieve the same desired physical or biological condition as reducing both nitrogen and phosphorus. In such cases, requiring a point source discharger to immediately install sophisticated nutrient-removal technologies to reduce to general variance levels the concentration of the less-important nutrient may not be the most prudent nutrient control expenditure and would cause the discharger to incur unnecessary economic expense. Because this relates to economic expense, these situations may be addressed with an individual variance. Nutrient limitation status of water bodies can change due to a number of factors. For example, it can change due to substantive nonpoint source cleanups upstream of the discharger. Therefore, status monitoring by dischargers receiving this type of individual variance is required per New Rule I(4).

New Rule I(5) requires the department to consult with the applicant regarding what the department perceives to be the availability of reasonable alternatives which would preclude the need for the individual variance. This consultation would occur before the department makes a final decision regarding the granting of the individual variance. Requiring consultation with the applicant assures that the reasonable alternatives decision is made based on complete information.

If it results that no reasonable alternative can be identified, New Rule I(6) requires the department to determine if the applicant has adequately demonstrated compliance. This implements 75-5-313(1), MCA.

New Rule I(7) simply makes clear that, in the development of a TMDL, it may be determined that a point source discharger is an insignificant load of nutrients and,

in such cases, there would be no need for the discharger to request a nutrient standards variance, because the current level of total nitrogen and total phosphorus removal is adequate.

New Rule I(8) adopts DEQ-12B by reference. Section 75-5-313, MCA, provides for different types of variances and directs the department and the nutrient work group to develop guidance on implementing individual variances. DEQ-12B contains the individual variance implementation details that have been developed by the department and the nutrient work group over the past five years. For example, in DEQ-12B, individual variances from the base numeric nutrient standards may be granted for economic reasons using two different approaches: (a) via a direct assessment of a community's ability to pay for increased wastewater treatment; and (b) via an evaluation to determine if a stream receiving wastewater can support beneficial uses at nutrient concentrations higher than the proposed standards (discussed above for New Rule I(4)). Individual variances granted by the department will be documented in DEQ-12B. In addition, DEQ-12B addresses other specifics pertaining to variances, for example how general variance treatment requirements will be re-evaluated every three years, how general and individual variances will be expressed in discharge permits, and specifics on the nutrient-reduction optimization study (required for recipients of general variances). As is required by 75-5-313(6)(a), MCA, DEQ-12B adopts the variance limits contained in 75-5-313(5)(b), MCA. Department Circular DEQ-12B sunsets these limits in 2017 in order to ensure that the department takes action pursuant to the review mandated by 75-5-313(7)(a), MCA. In short, 75-5-313, MCA, provides for variances and DEQ-12B provides additional, technical details necessary to implement the concept.

4. The proposed new circular may be viewed at and copied from the department's web site at http://deq.mt.gov/wqinfo/Standards/default.mcpx. Also, copies may be obtained by contacting Carrie Greeley at Department of Environmental Quality, P.O. Box 200901, Helena, MT 59620-0901; by phone at (406) 444-6749; or by e-mail at CGreeley@mt.gov.

5. Concerned persons may submit their data, views, or arguments, either orally or in writing, at the hearing. Written data, views, or arguments may also be submitted to Carrie Greeley, Department of Environmental Quality, 1520 E. Sixth Avenue, P.O. Box 200901, Helena, Montana 59620-0901; faxed to (406) 444-6836; or e-mailed to deqwqpadmin@mt.gov, no later than 5:00 p.m., April 1, 2014. To be guaranteed consideration, mailed comments must be postmarked on or before that date.

6. George Mathieus, Administrator of the Planning, Prevention, and Assistance Division of the Department of Environmental Quality, has been designated to preside over and conduct the hearing.

7. The department maintains a list of interested persons who wish to receive notices of rulemaking actions proposed by this agency. Persons who wish to have their name added to the list shall make a written request that includes the name, e-mail, and mailing address of the person to receive notices and specifies that the

person wishes to receive notices regarding: air quality; hazardous waste/waste oil; asbestos control; water/wastewater treatment plant operator certification; solid waste; junk vehicles; infectious waste; public water supply; public sewage systems regulation; hard rock (metal) mine reclamation; major facility siting; opencut mine reclamation; strip mine reclamation; subdivisions; renewable energy grants/loans; wastewater treatment or safe drinking water revolving grants and loans; water quality; CECRA; underground/above ground storage tanks; MEPA; or general procedural rules other than MEPA. Notices will be sent by e-mail unless a mailing preference is noted in the request. Such written request may be mailed or delivered to Elois Johnson, Paralegal, Department of Environmental Quality, 1520 E. Sixth Ave., P.O. Box 200901, Helena, Montana 59620-0901, faxed to the office at (406) 444-4386, e-mailed to Elois Johnson at ejohnson@mt.gov, or may be made by completing a request form at any rules hearing held by the board.

8. The bill sponsor contact requirements of 2-4-302, MCA, apply and have been fulfilled. The primary bill sponsor was contacted by the department in person on September 15, 2011.

9. With regard to the requirements of 2-4-111, MCA, the department has determined that the adoption of the above-referenced rule will not significantly and directly impact small businesses.

Reviewed by:

DEPARTMENT OF ENVIRONMENTAL QUALITY

/s/ John F. North
JOHN F. NORTH
Rule Reviewer

BY: */s/ Tracy Stone-Manning*
TRACY STONE-MANNING, Director

Certified to the Secretary of State, February 3, 2014.

BEFORE THE BOARD OF ENVIRONMENTAL REVIEW
OF THE STATE OF MONTANA

In the matter of the amendment of ARM 17.30.201, 17.30.507, 17.30.516, 17.30.602, 17.30.619, 17.30.622, 17.30.623, 17.30.624, 17.30.625, 17.30.626, 17.30.627, 17.30.628, 17.30.629, 17.30.635, 17.30.702, and 17.30.715 pertaining to permit application, degradation authorization, and annual permit fees, specific restrictions for surface water mixing zones, standard mixing zones for surface water, definitions, incorporations by reference, A-1 classification standards, B-1 classification standards, B-2 classification standards, B-3 classification standards, C-1 classification standards, C-2 classification standards, I classification standards, C-3 classification standards, general treatment standards, definitions, and criteria for determining nonsignificant changes in water quality	NOTICE OF PUBLIC HEARING ON PROPOSED AMENDMENT (WATER QUALITY)

TO: All Concerned Persons

1. On March 24, 2014, at 2:00 p.m., the Board of Environmental Review will hold a public hearing in Room 111, Metcalf Building, 1520 East Sixth Avenue, Helena, Montana, to consider the proposed amendment of the above-stated rules. At 9:00 a.m., immediately preceding the hearing for MAR Notice No. 17-355 (which is scheduled for 10:00 a.m.), at the same location, the Department of Environmental Quality will hold an informal question and answer session regarding this rulemaking and MAR Notice No. 17-355, which is the Department's proposed adoption of numeric nutrient standards variances rules.

2. The board will make reasonable accommodations for persons with disabilities who wish to participate in this public hearing or need an alternative accessible format of this notice. If you require an accommodation, contact Elois Johnson, Paralegal, no later than 5:00 p.m., March 10, 2014, to advise us of the nature of the accommodation that you need. Please contact Elois Johnson at Department of Environmental Quality, P.O. Box 200901, Helena, Montana 59620-0901; phone (406) 444-2630; fax (406) 444-4386; or e-mail ejohnson@mt.gov.

3. The board is proposing to adopt new Department Circular DEQ-12A (DEQ-12A), which contains base numeric nutrient standards for total nitrogen and

total phosphorus, and to incorporate new DEQ-12A into the surface water quality classifications and the nondegradation rules. The board is also proposing rule amendments pertaining to definitions and a low flow for base numeric nutrient standards appropriate for the design of disposal systems.

The department has documented that various forms of nitrogen and phosphorus rank as the 4th, 8th, 10th, and 12th most common types of pollution in Montana's flowing waters. In fact, excess nitrogen and phosphorus levels account for 17 percent of all stream miles impaired by all forms of water pollution in Montana. The intent of the proposed nutrient standards is to control the undesirable effects of eutrophication. Eutrophication is the enrichment of a waterbody (e.g., a stream or lake) by nitrogen and phosphorus, which leads to increased plant and algae growth and decay and all the consequential changes to the water quality that occur as a result. At present Montana does not have numeric water quality standards for controlling eutrophication, except on the Clark Fork River. Therefore, in most cases, permit limits, including waste load allocations determined in Total Maximum Daily Loads (i.e., TMDLs) are based upon the narrative water quality standard. The narrative standard prohibits substances in water that "create conditions which produce undesirable aquatic life" (ARM 17.30.637(1)(e)). Translating the narrative standard into enforceable permit limits on a case-by-case basis is time-consuming, dependent upon judgment which invites controversy, and may result in inconsistent or differing permit limits due to various interpretations among permit or TMDL writers. Numeric nutrient criteria will resolve this.

The effects of excess nitrogen and phosphorus in streams and rivers go well beyond the undesirable aquatic life referred to in the narrative standard. Excess nitrogen and phosphorus affect other water quality parameters for which Montana already has standards (dissolved oxygen, pH). The state of the science is such that linkages can clearly be made between nitrogen and phosphorus concentrations and these other, already-adopted standards. Thus, the numeric nutrient criteria will also ensure protection and attainment of Montana's dissolved oxygen and pH standards which are, in and of themselves, critical to the protection of fish and aquatic life.

State law requires that waterbodies support multiple beneficial uses (e.g., agriculture, fish and associated aquatic life, recreation). In turn, a water quality criterion for a given pollutant is established at a concentration that protects the most sensitive of the beneficial uses from the impacts caused by the pollutant. Numeric criteria for nitrogen and phosphorus concentrations are contained in DEQ-12A and vary geographically across the state. For streams and small rivers of western Montana, the numeric nutrient criteria have generally been established at concentrations that will prevent nuisance levels of bottom-attached algae and ensure that dissolved oxygen levels are maintained at standards already established by the state. The nuisance threshold for attached algae was determined via scientific polling of Montana citizens and river and stream users, and is, therefore, associated with the recreation use. Dissolved oxygen standards, in contrast, are associated with the fish and aquatic life beneficial use. In western Montana, the fish and aquatic life use and the recreation use have broadly similar sensitivities to nitrogen and phosphorus pollution.

In eastern Montana, the criteria are established at levels that will protect the indigenous fish populations and will generally ensure that dissolved oxygen levels do

not decline below state standards. The attached algae threshold was not used to derive nutrient criteria for eastern Montana streams and small rivers because (a) the department's scientific poll did not address the types of streams typical of eastern Montana, and (b) attached algae levels higher than the nuisance threshold have been periodically observed in reference streams of the region. Nitrogen and phosphorus criteria concentrations are substantially higher in eastern Montana and this is due, in part, to the higher natural turbidity of those streams. Nutrient criteria for large rivers are mostly still under development. However, they have been completed for a large river segment (the lower Yellowstone), which is included in DEQ-12A. In the lower Yellowstone River, the nutrient criteria are set at concentrations that will prevent nuisance bottom-attached algae and extreme variations in pH (the latter of which impacts fish). The scientific bases for the criteria are laid out in more detail in the following documents: Scientific and Technical Basis of the Numeric Nutrient Criteria for Montana's Wadeable Streams and Rivers (2008) and Scientific and Technical Basis of the Numeric Nutrient Criteria for Montana's Wadeable Streams and Rivers: Update 1 (2013). These documents may be viewed on the department's web site at http://www.deq.mt.gov/wqinfo/standards/NumericNutrientCriteria.mcpx. They may also be obtained from the department at the address or phone number listed in paragraph 5 of this notice.

The nutrient criteria concentrations being proposed for adoption as standards are generally low, particularly in the western region of Montana. In many cases, the concentrations are below the limits of current wastewater treatment technology, particularly for nitrogen. Therefore, when little or no stream dilution is available, dischargers will find it difficult or impossible to meet the standards. Senate Bill 95 (2009 Legislature) and Senate Bill 367 (2011 Legislature), now codified at 75-5-313, MCA, addressed the high cost and technological difficulties associated with meeting the nutrient standards in the short term. Section 75-5-313, MCA, allows dischargers to be granted variances from numeric nutrient standards, once the criteria have been adopted as standards, in those cases where meeting the standards today would be an unreasonable economic burden or technologically infeasible. Variances from the standards may be granted for up to twenty years. Thus, 75-5-313, MCA, allows for the nutrient standards to be met in a staged manner, over time, as alternative effluent management methods are considered, nutrient removal technologies become more cost-effective and efficient, and nonpoint sources of nutrients are addressed. Rules implementing 75-5-313, MCA, are within the rulemaking authority of the Department of Environmental Quality, not the Board of Environmental Review. Concurrent with the board's rulemaking process initiated by this notice, the department has proposed rulemaking to implement the variance process. See MAR Notice No. 17-355. The department will hold a separate hearing on those rules. Comments regarding the variance process must be submitted to the department as indicated in MAR Notice No. 17-355.

4. The rules proposed to be amended provide as follows, stricken matter interlined, new matter underlined:

17.30.201 PERMIT APPLICATION, DEGRADATION AUTHORIZATION,

AND ANNUAL PERMIT FEES (1) through (5) remain the same.

(6) The fee schedules for new or renewal applications for, or modifications of, a Montana pollutant discharge elimination system permit under ARM Title 17, chapter 30, subchapter 11 or 13, a Montana ground water pollution control system permit under ARM Title 17, chapter 30, subchapter 10, or any other authorization under 75-5-201, 75-5-301, or 75-5-401, MCA, or rules promulgated under these authorities, are set forth below as Schedules I.A, I.B, I.C, and I.D. Fees must be paid in full at the time of submission of the application. For new applications under Schedule I.A, the annual fee from Schedule III.A for the first year must also be paid at the time of application. For new applications under Schedule I.B and I.C, the annual fee is included in the new permit amount and covers the annual fee for the calendar year in which the permit coverage becomes effective.

(a) through (e) remain the same.

(f) Applications for new permits or permit renewals for sources that constitute a new or increased source, as defined in ARM 17.30.702~~(18)~~ (17), must pay a significance determination fee for each outfall in addition to the application fee.

(g) through (11)(b) remain the same.

AUTH: 75-5-516, MCA
IMP: 75-5-516, MCA

REASON: The amendment to ARM 17.30.201(6)(f) modifies a cross-reference to ARM 17.30.702 because the numbering in that rule is proposed to be changed in this notice.

17.30.507 SPECIFIC RESTRICTIONS FOR SURFACE WATER MIXING ZONES (1) Mixing zones for surface waters are ~~to comply with~~ subject to the following water quality standards:

(a) narrative water quality standards, standards for harmful substances, numeric acute and chronic standards for aquatic life~~.~~; standards in Department Circular DEQ-12A; and standards based on human health must not be exceeded beyond the boundaries of the surface water mixing zone;

(b) through (3) remain the same.

AUTH: 75-5-301, MCA
IMP: 75-5-301, 75-5-313, MCA

REASON: The amendment to this rule is necessary to ensure that mixing zones are available for nutrient standards and to ensure that the nutrient standards must be met beyond the mixing zone. A mixing zone is a nationally recognized and useful tool to implement standards in permits, and there is no reason that this tool should not be available for nutrient standards.

17.30.516 STANDARD MIXING ZONES FOR SURFACE WATER (1) and (2) remain the same.

(3) Facilities that meet the terms and conditions in (a) through ~~(d)~~ (e) qualify for a standard mixing zone as follows:

(a) through (d) remain the same.

(e) Facilities that discharge the parameters found in Department Circular DEQ-12A to surface water. Discharge limitations must be based on dilution with the entire seasonal 14-day, five-year (seasonal 14Q5) low flow of the receiving water without the discharge.

(4) The length of a standard mixing zone for flowing surface water, other than a nearly instantaneous mixing zone, must not extend downstream more than the one-half mixing width distance or extend downstream more than ~~10~~ ten times the stream width, whichever is more restrictive. For purposes of making this determination, the stream width as well as the discharge limitations are considered at the 7Q10 or seasonal 14Q5 low flow. The seasonal 14Q5 low flow may be used only in conjunction with base numeric nutrient standards in Department Circular DEQ-12A. The recommended calculation to be used to determine the one-half mixing width distance downstream from a stream bank discharge is described below.

(a) $A_{1/2} = [0.4(W/2)^2V]/L$, where:

(i) remains the same.

(ii) W = width in feet at the 7Q10 or seasonal 14Q5;

(iii) V = velocity of the stream at the 7Q10 or seasonal 14Q5 downstream of the discharge (in ft/second);

(iv) L = lateral dispersion coefficient for the 7Q10 or seasonal 14Q5 downstream of the discharge (in ft^2/second), where:

(b) L = CDU, where:

(i) through (i)(E) remain the same.

(ii) D = average water depth at the 7Q10 or seasonal 14Q5 downstream of the discharge (in feet);

(iii) remains the same.

(c) $U = (32.2DS)^{1/2}$, where:

(i) remains the same.

(ii) D = average water depth at the 7Q10 or seasonal 14Q5 downstream of the discharge (in feet); and

(iii) through (6) remain the same.

AUTH: 75-5-301, MCA
IMP: 75-5-301, MCA

REASON: The manner in which nutrients affect and impact beneficial uses in streams and rivers is different from toxic and harmful compounds found in Department Circular DEQ-7 (DEQ-7), and it is necessary to develop an appropriate low flow design flow (the seasonal 14Q5) specifically for permitting nutrient discharges. Derivation of the seasonal 14Q5 is discussed in the proposed changes to ARM 17.30.635. Here, the rule amendments incorporate the seasonal 14Q5 flow into the calculations used to determine the length of a standard mixing zone. ARM 17.30.516 is proposed to be amended to provide that the full volume of a seasonal 14Q5, as opposed to some fraction of it, is to be used for dilution calculations for nutrients in DEQ-12A. This allowance reflects the non-toxic nature of nutrients at the concentrations found in DEQ-12A.

17.30.602 DEFINITIONS In this subchapter the following terms have the meanings indicated below and are supplemental to the definitions given in 75-5-103, MCA:

(1) through (32) remain the same.

(33) "Total nitrogen" means the ~~total nitrogen concentration (as N) of unfiltered water. This may be determined by direct methods, or derived as the sum of the soluble (as N) and non-soluble (as N) nitrogen fractions. The filter used to separate the soluble and non-soluble fractions must be 0.45 µm~~ sum of all nitrate, nitrite, ammonia, and organic nitrogen, as N, in an unfiltered water sample. Total nitrogen in a sample may also be determined by the persulfate digestion or as the sum of total kjeldahl nitrogen plus nitrate plus nitrite.

(34) "Total phosphorus" means the ~~total phosphorus concentration (as P) of unfiltered water~~ sum of orthophosphates, polyphosphates, and organically bound phosphates, as P, in an unfiltered water sample. Total phosphorus may also be determined directly by persulfate digestion.

(35) through (38) remain the same.

(39) "DEQ-7" means the department circular that is adopted and incorporated by reference in ARM 17.30.619 and is entitled "Montana Numeric Water Quality Standards." This circular establishes water quality standards for toxic, carcinogenic, ~~bioconcentration~~ bioconcentrating, ~~nutrient,~~ radioactive, and harmful parameters, and also establishes human health-based water quality standards for the following specific nutrients with toxic effects:

(a) nitrate;

(b) nitrate + nitrite; and

(c) nitrite.

(40) "DEQ-12A" means the department circular that is adopted and incorporated by reference in ARM 17.30.619 and is entitled "Montana Base Numeric Nutrient Standards." This circular contains numeric water quality standards for total nitrogen and total phosphorus in surface waters.

(41) "DEQ-12B" means the department circular that is adopted and that is entitled "Montana Base Numeric Nutrient Standards Variances." This circular describes procedures for receiving a variance from the standards and will document recipients of individual variances.

AUTH: 75-5-201, 75-5-301, MCA
IMP: 75-5-301, 75-5-313, MCA

REASON: The proposed amendments to ARM 17.30.602 provide modification of existing definitions and a new definition in order to implement the nutrient standards. The modified definition of "total nitrogen," at (33), provides a more technically accurate description compared to the old definition. The same is true for "total phosphorus," at (34). In the definition for "DEQ-7," at (39), "nutrient" has been removed because base numeric nutrient standards will now be housed in a new department circular, DEQ-12A. Some nitrogen compounds (nitrate, nitrate + nitrite, and nitrite) have toxic effects at relatively high concentrations and standards for them already exist and are intended to protect human health. By definition at 75-

5-103(2)(b), MCA, these compounds are not considered part of the base numeric nutrients standards. Therefore, they will remain in DEQ-7 and are now listed under the DEQ-7 definition for better clarity. The new definition at (40), "DEQ-12A," defines the new department circular where base numeric nutrient standards are found. In addition to the criteria concentrations, the circular includes instructions on how to develop permits for base numeric nutrient standards. In MAR Notice No. 17-355, the department is proposing to adopt new Department Circular DEQ-12B. It contains the procedures for receiving a variance from the standards and will document recipients of individual variances. The board anticipates that DEQ-12B will be adopted before or at the same time DEQ-12A is adopted.

17.30.619 INCORPORATIONS BY REFERENCE (1) The board adopts and incorporates by reference the following state and federal requirements and procedures as part of Montana's surface water quality standards:

(a) Department Circular DEQ-7, entitled "Montana Numeric Water Quality Standards" (October 2012 edition), which establishes water quality standards for toxic, carcinogenic, bioconcentrating, ~~nutrient,~~ radioactive, and harmful parameters and also establishes human health-based water quality standards for the following specific nutrients with toxic effects:

(i) nitrate;

(ii) nitrate + nitrite; and

(iii) nitrite;

(b) remains the same.

(c) 40 CFR Part 136 (July 1, 2011), which establishes guidelines and procedures for the analysis of pollutants; ~~and~~

(d) 40 CFR 131.10(g), (h) and (j) (2000), which establishes criteria and guidelines for conducting a use attainability analysis~~.~~; and

(e) Department Circular DEQ-12A, entitled "Montana Base Numeric Nutrient Standards" (December 2013 edition), which establishes numeric water quality standards for total nitrogen and total phosphorus in surface waters.

(2) If a court of competent jurisdiction declares 75-5-313, MCA, or any portion of that statute invalid, or if the United States Environmental Protection Agency disapproves 75-5-313, MCA, or any portion of that statute, under 30 CFR 131.21, or if rules adopted pursuant to 75-5-313(6) or (7), MCA, expire and general variances are not available, then (1)(e) and all references to DEQ-12A, base numeric nutrient standards and nutrient standards variances in ARM 17.30.201, 17.30.507, 17.30.516, 17.30.602, 17.30.622 through 17.30.629, 17.30.635, 17.30.702, and 17.30.715 are void, and the narrative water quality standards contained in ARM 17.30.637 are the standards for total nitrogen and total phosphorus in surface water, except for the Clark Fork River, for which the standards are the numeric standards in ARM 17.30.631.

(2) remains the same, but is renumbered (3).

AUTH: 75-5-201, 75-5-301, MCA
IMP: 75-5-301, 75-5-313, MCA

REASON: The amendments to the definitions for DEQ-7, in (1)(a),

correspond to those already discussed above for definitions (ARM 17.30.602). Proposed new (2) is a non-severability clause. Essentially, if the statute that defines the nutrient standards variance process is rendered invalid, or if general variance rules expire and general variances are not available, then the base numeric nutrient standards would no longer be contained in the rules. The Legislature intended that variances be available to permittees once base numeric nutrient standards were adopted and both pieces (base numeric standards and variances) must remain together as a package.

17.30.622 A-1 CLASSIFICATION STANDARDS (1) and (2) remain the same.

(3) No person may violate the following specific water quality standards for waters classified A-1:

(a) through (g) remain the same.

(h) Concentrations of carcinogenic, bioconcentrating, toxic, radioactive, nutrient or harmful parameters may not exceed the applicable standards set forth in ~~d~~Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A.

(i) Dischargers issued permits under ARM Title 17, chapter 30, subchapter 13, shall conform with ARM Title 17, chapter 30, subchapter 7, the nondegradation rules, and may not cause receiving water concentrations to exceed the applicable standards contained in ~~d~~Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A when stream flows equal or exceed the design flows specified in ARM 17.30.635~~(4)~~ (2).

(j) and (k) remain the same.

AUTH: 75-5-201, 75-5-301, MCA
IMP: 75-5-301, 75-5-313, MCA

17.30.623 B-1 CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified B-1:

(a) through (g) remain the same.

(h) Concentrations of carcinogenic, bioconcentrating, toxic, radioactive, nutrient, or harmful parameters may not exceed the applicable standards set forth in ~~d~~Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A.

(i) Dischargers issued permits under ARM Title 17, chapter 30, subchapter 13, shall conform with ARM Title 17, chapter 30, subchapter 7, the nondegradation rules, and may not cause receiving water concentrations to exceed the applicable standards specified in ~~d~~Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A when stream flows equal or exceed the design flows specified in ARM 17.30.635~~(4)~~ (2).

(j) and (k) remain the same.

AUTH: 75-5-201, 75-5-301, MCA
IMP: 75-5-301, 75-5-313, MCA

17.30.624 B-2 CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified B-2:

(a) through (g) remain the same.

(h) Concentrations of carcinogenic, bioconcentrating, toxic, radioactive, nutrient, or harmful parameters may not exceed the applicable standards set forth in ~~d~~Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A.

(i) Dischargers issued permits under ARM Title 17, chapter 30, subchapter 13, shall conform with ARM Title 17, chapter 30, subchapter 7, the nondegradation rules, and may not cause receiving water concentrations to exceed the applicable standards specified in ~~d~~Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A when stream flows equal or exceed the design flows specified in ARM 17.30.635~~(4)~~ (2).

(j) and (k) remain the same.

AUTH: 75-5-201, 75-5-301, MCA
IMP: 75-5-301, 75-5-313, MCA

17.30.625 B-3 CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified B-3:

(a) through (g) remain the same.

(h) Concentrations of carcinogenic, bioconcentrating, toxic, radioactive, nutrient, or harmful parameters may not exceed the applicable standards set forth in ~~d~~Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A.

(i) Dischargers issued permits under ARM Title 17, chapter 30, subchapter 13, shall conform with ARM Title 17, chapter 30, subchapter 7, the nondegradation rules, and may not cause receiving water concentrations to exceed the applicable standards specified in ~~d~~Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A when stream flows equal or exceed the design flows specified in ARM 17.30.635~~(4)~~ (2).

(j) and (k) remain the same.

AUTH: 75-5-201, 75-5-301, MCA
IMP: 75-5-301, 75-5-313, MCA

17.30.626 C-1 CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified C-1:

(a) through (g) remain the same.

(h) Concentrations of carcinogenic, bioconcentrating, toxic, radioactive, nutrient, or harmful parameters may not exceed the applicable standards specified in ~~d~~Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A.

(i) Dischargers issued permits under ARM Title 17, chapter 30, subchapter 13, shall conform with ARM Title 17, chapter 30, subchapter 7, the nondegradation rules, and may not cause receiving water concentrations to exceed the applicable standards specified in ~~d~~Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A when stream flows equal or exceed the design flows specified in ARM 17.30.635~~(4)~~ (2).

(j) and (k) remain the same.

AUTH: 75-5-201, 75-5-301, MCA
IMP: 75-5-301, 75-5-313, MCA

17.30.627 C-2 CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified C-2:

(a) through (g) remain the same.

(h) Concentrations of carcinogenic, bioconcentrating, toxic, radioactive, nutrient, or harmful parameters may not exceed the applicable standards specified in ~~d~~Department Circular ~~WQB~~ DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A.

(i) Dischargers issued permits under ARM Title 17, chapter 30, subchapter 13, shall conform with ARM Title 17, chapter 30, subchapter 7, the nondegradation rules, and may not cause receiving water concentrations to exceed the applicable standards specified in ~~d~~Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A when stream flows equal or exceed the design flows specified in ARM 17.30.635~~(4)~~ (2).

(j) and (k) remain the same.

AUTH: 75-5-201, 75-5-301, MCA
IMP: 75-5-301, 75-5-313, MCA

REASON: The proposed amendments to ARM 17.30.622 through 17.30.627 are necessary to incorporate DEQ-12A standards and nutrient standards variance limits into the surface water classes.

17.30.628 I CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified I:

(a) through (i) remain the same.

(j) Beneficial uses are considered supported when the concentrations of toxic, carcinogenic, nutrient, or harmful parameters in these waters do not exceed the applicable standards specified in ~~d~~Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A when stream flows equal or exceed the flows specified in ARM 17.30.635~~(4)~~ (2) or, alternatively, for aquatic life when site-specific criteria are adopted using the procedures given in 75-5-310, MCA. The limits shall be used as water quality standards for the affected waters and as the basis for permit limits instead of the applicable standards in ~~d~~Department Circular DEQ-7.

(k) Limits for toxic, carcinogenic, or harmful parameters in new discharge permits issued pursuant to the MPDES rules (ARM Title 17, chapter 30, subchapter 13) are the larger of ~~either~~ the applicable standards specified in ~~d~~Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A, site-specific standards, or one-half of the mean in-stream concentrations immediately upstream of the discharge point.

AUTH: 75-5-201, 75-5-301, MCA
IMP: 75-5-301, 75-5-313, MCA

REASON: The proposed amendment to ARM 17.30.628 is necessary to incorporate DEQ-12A and the nutrient standards variance limits into the I surface water class. I Class waterbodies are those which had severe human-caused pollution problems at the time the surface water class system was adopted in the 1970s, and it is the board's intent that these waterbodies will eventually support beneficial uses typical for ecologically similar, unimpacted waterbodies.

17.30.629 C-3 CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified C-3:

(a) through (g) remain the same.

(h) Concentrations of carcinogenic, bioconcentrating, toxic, radioactive, nutrient, or harmful parameters may not exceed the applicable standards set forth in ~~d~~Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A.

(i) Dischargers issued permits under ARM Title 17, chapter 30, subchapter 13, shall conform with ARM Title 17, chapter 30, subchapter 7, the nondegradation rules, and may not cause receiving water concentrations to exceed the applicable standards specified in ~~d~~Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A when stream flows equal or exceed the design flows specified in ARM 17.30.635~~(4)~~ (2).

(j) and (k) remain the same.

AUTH: 75-5-201, 75-5-301, MCA
IMP: 75-5-301, 75-5-313, MCA

REASON: The proposed amendments to ARM 17.30.629 are necessary to incorporate DEQ-12A standards and nutrient variance limits into the C-3 surface water class.

17.30.635 GENERAL TREATMENT STANDARDS (1) through (1)(e) remain the same.

(2) For design of disposal systems, stream flow dilution requirements must be based on the minimum consecutive seven-day average flow which may be expected to occur on the average of once in ten years. When dilution flows are less than the above design flow at a point discharge, the discharge is to be governed by the permit conditions developed for the discharge through the waste discharge

permit program. If the flow records on an affected surface water are insufficient to calculate a ten-year seven-day low flow, the department shall determine an acceptable stream flow for disposal system design. ~~The department shall determine the acceptable stream flow for disposal system design for controlling nitrogen and phosphorus concentrations.~~ For total nitrogen and total phosphorus, the stream flow dilution requirements must be based on the seasonal 14Q5, which is the lowest average 14 consecutive day low flow, occurring from July through October, with an average recurrence frequency of once in five years.

(3) remains the same.

AUTH: 75-5-201, 75-5-301, MCA
IMP: 75-5-301, MCA

REASON: The proposed amendments to ARM 17.30.635 will provide a low flow for the design of disposal systems specific to eutrophication-based nutrient standards. Work by the department and others shows that nuisance benthic algae can develop in about 15-20 days once nutrient concentrations exceed the proposed standards. In many streams, these algae levels can ultimately lead to dissolved oxygen impacts. The use of the seasonal 14Q5 flow for the design of disposal systems is appropriate because this flow should not allow excess algae levels to develop more often than about once in five summers, on average. This frequency of exceedence is within the acceptable recommendations of the U.S. Environmental Protection Agency for the protection of aquatic life. Unlike the 7Q10 flow, which will continue to be used for parameters in DEQ-7 and which was derived from year-round flow data, the seasonal 14Q5 flow is derived from July through October data and is, therefore, in alignment with the proposed nutrient standards' periods of application. The seasonal 14Q5 is routinely calculated and reported by the U.S. Geological Survey.

17.30.702 DEFINITIONS The following definitions, in addition to those in 75-5-103, MCA, apply throughout this subchapter (Note: 75-5-103, MCA, includes definitions for "base numeric nutrient standards," "degradation," "existing uses," "high quality waters," "mixing zone," and "parameter"):

(1) through (16) remain the same.

~~(17) "Nutrients" means total inorganic phosphorus and total inorganic nitrogen.~~

(18) through (21) remain the same, but are renumbered (17) through (20).

~~(22)~~ (21) "Reporting values (RRV)" means the detection level that must be achieved in reporting surface water or ground water monitoring or compliance data to the department unless otherwise specified in a permit, approval, or authorization issued by the department. The RRV is the ~~department's~~ board's best determination of a level of analysis that can be achieved by the majority of commercial, university, or governmental laboratories using EPA approved methods or methods approved by the department. The RRV is listed in Department Circular DEQ-7, Department Circular DEQ-12A, and in the definition of "total inorganic phosphorus."

(23) remains the same, but is renumbered (22).

(23) "Total nitrogen" means the sum of all nitrate, nitrite, ammonia, and

organic nitrogen, as N, in an unfiltered water sample. Total nitrogen in a sample may also be determined by persulfate digestion, or as the sum of total kjeldahl nitrogen plus nitrate plus nitrite.

(24) "Total phosphorus" means the sum of orthophosphates, polyphosphates, and organically bound phosphates, as P, in an unfiltered water sample. Total phosphorus may also be determined directly by persulfate digestion.

(24) and (25) remain as proposed, but are renumbered (25) and (26).

~~(26)~~ (27) The board adopts and incorporates by reference:

(a) Department Circular DEQ-7, entitled "Montana Numeric Water Quality Standards" (October 2012 edition), which establishes water quality standards for toxic, carcinogenic, bioconcentrating, ~~nutrient,~~ radioactive, and harmful parameters and also establishes human health-based water quality standards for the following specific nutrients with toxic effects:

(i) nitrate;

(ii) nitrate + nitrite; and

(iii) nitrite;

(b) Department Circular DEQ-12A, entitled "Montana Base Numeric Nutrient Standards" (December 2013 edition), which establishes numeric water quality standards for total nitrogen and total phosphorus in surface waters;

(b) through (d) remain the same, but are renumbered (c) through (e).

AUTH: 75-5-301, 75-5-303, MCA
IMP: 75-5-303, MCA

REASON: The proposed amendments to ARM 17.30.702 will modify current definitions in the nondegradation rules and will add new definitions necessary for the implementation of base numeric nutrient standards. "Base numeric nutrients standards" have been added to the list of definitions from 75-5-103, MCA, that are incorporated by reference. The current definition of "nutrients," at (17), is being repealed, because it is not consistent with the use of the term in DEQ-12A, which contains standards for total nutrients. Further, the definition of "nutrients" added no clear value to the nondegradation rules, because, where needed, specific nutrient compounds or forms (e.g., TKN, nitrate as N) are named or referenced in the nondegradation rules. The proposed definitions of "total nitrogen," at (24), and "total phosphorus," at (25), correspond to those discussed above for amendments to ARM 17.30.602. The definition of "DEQ-7," in (28)(b), has been amended for the same reasons described above for ARM 17.30.602.

17.30.715 CRITERIA FOR DETERMINING NONSIGNIFICANT CHANGES IN WATER QUALITY (1) The following criteria will be used to determine whether certain activities or classes of activities will result in nonsignificant changes in existing water quality due to their low potential to affect human health or the environment. These criteria consider the quantity and strength of the pollutant, the length of time the changes will occur, and the character of the pollutant. Except as provided in (2), changes in existing surface or ground water quality resulting from the activities that meet all the criteria listed below are nonsignificant, and are not required to undergo review under 75-5-303, MCA:

(a) and (b) remain the same.

(c) discharges containing toxic parameters, inorganic nitrogen, or inorganic phosphorus ~~or nutrients~~, except as specified in (1)(d) and (e), which will not cause changes that equal or exceed the trigger values in ~~d~~Department Circular DEQ-7. Whenever the change exceeds the trigger value, the change is not significant if the resulting concentration outside of a mixing zone designated by the department does not exceed 15% of the lowest applicable standard;

(d) through (e) remain the same.

(f) changes in the quality of water for any harmful parameter, including parameters listed in Department Circular DEQ-12A, for which water quality standards have been adopted other than ~~nitrogen, phosphorous, and~~ carcinogenic, bioconcentrating, or toxic parameters, in either surface or ground water, if the changes outside of a mixing zone designated by the department are less than 10% of the applicable standard and the existing water quality level is less than 40% of the standard;

(g) through (3) remain the same.

(4) If a court of competent jurisdiction declares 75-5-313, MCA, or any portion of that statute invalid or if the United States Environmental Protection Agency disapproves 75-5-313, MCA, or any portion of that statute under 30 CFR 131.21, then the significance criteria contained in (1)(g) are the significance criteria for total nitrogen and total phosphorus in surface water.

AUTH: 75-5-301, 75-5-303, MCA
IMP: 75-5-303, MCA

REASON: The proposed amendments to ARM 17.30.715 will allow the department to calculate nonsignificant changes in water quality for the base numeric nutrient standards in DEQ-12A. If adopted by the board, base numeric nutrient standards will preclude the need to use the narrative standards at ARM 17.30.637(1)(e) to interpret eutrophication-based water quality impacts from nutrients. Base numeric nutrient standards are intended to control eutrophication and, at the concentrations found in DEQ-12A, the board considers base numeric nutrient standards to be harmful parameters. Therefore, DEQ-12A is incorporated into (1)(f), the section of the nondegradation rules addressing nonsignificance specific to harmful parameters. Nitrogen compounds at concentrations that are toxic, e.g., nitrate at ten mg/L, will remain in DEQ-7, as discussed earlier, and toxics-based nonsignificance criteria applicable to such compounds will continue to be applied to them. The proposed deletion of "or nutrients," in (1)(c), corresponds with the retaining of toxic-level nitrogen compounds in DEQ-7 and the relocation of eutrophication-based nitrogen and phosphorus standards to DEQ-12A. In addition, the term "or nutrients" in (1)(c) has been replaced with "or total inorganic phosphorus or total inorganic nitrogen," for the specific purpose of providing a nonsignificance threshold for nondegradation review of new dischargers, which are commonly subdivisions. This change allows the department to continue to carry out these reviews in the same manner as currently practiced, because DEQ-7 provides a trigger value for both of these inorganic compounds. ARM 17.30.715(1)(c) also provides: "Whenever the change exceeds the trigger value, the change is not

significant if the resulting concentration outside of a mixing zone designated by the department does not exceed 15% of the lowest applicable standard." When these provisions become applicable, the "lowest applicable standard" would be the narrative standard contained in ARM 17.30.637(1)(e). Significance would then be determined under ARM 17.30.715(1)(g). Proposed new (4) is a non-severability clause. If the statute that defines the nutrient standards variance process is rendered invalid, then the numeric nutrient standards in DEQ-12A are void and the narrative standard for nutrients at ARM 17.30.637(1)(e) applies. As a result, the part of the nondegradation rules at ARM 17.30.715(1)(g) that relate to the narrative standards would apply. The Legislature intended that both major pieces of the numeric nutrient standards rules (base numeric nutrient standards and nutrient standards variances) remain together as a package.

5. The proposed new circular may be viewed at and copied from the department's web site at http://deq.mt.gov/wqinfo/Standards/default.mcpx. Also, copies may be obtained by contacting Carrie Greeley at Department of Environmental Quality, P.O. Box 200901, Helena, MT 59620-0901; by phone at (406) 444-6749; or by e-mail at CGreeley@mt.gov.

6. Concerned persons may submit their data, views, or arguments, either orally or in writing, at the hearing. Written data, views, or arguments may also be submitted to Elois Johnson, Paralegal, Department of Environmental Quality, 1520 E. Sixth Avenue, P.O. Box 200901, Helena, Montana 59620-0901; faxed to (406) 444-4386; or e-mailed to ejohnson@mt.gov, no later than 5:00 p.m., April 1, 2014. To be guaranteed consideration, mailed comments must be postmarked on or before that date.

7. Katherine Orr, attorney for the board, or another attorney for the Agency Legal Services Bureau, has been designated to preside over and conduct the hearing.

8. The board maintains a list of interested persons who wish to receive notices of rulemaking actions proposed by this agency. Persons who wish to have their name added to the list shall make a written request that includes the name, e-mail, and mailing address of the person to receive notices and specifies that the person wishes to receive notices regarding: air quality; hazardous waste/waste oil; asbestos control; water/wastewater treatment plant operator certification; solid waste; junk vehicles; infectious waste; public water supply; public sewage systems regulation; hard rock (metal) mine reclamation; major facility siting; opencut mine reclamation; strip mine reclamation; subdivisions; renewable energy grants/loans; wastewater treatment or safe drinking water revolving grants and loans; water quality; CECRA; underground/above ground storage tanks; MEPA; or general procedural rules other than MEPA. Notices will be sent by e-mail unless a mailing preference is noted in the request. Such written request may be mailed or delivered to Elois Johnson, Paralegal, Department of Environmental Quality, 1520 E. Sixth Ave., P.O. Box 200901, Helena, Montana 59620-0901, faxed to the office at (406) 444-4386, e-mailed to Elois Johnson at ejohnson@mt.gov, or may be made by

completing a request form at any rules hearing held by the board.

9. The bill sponsor contact requirements of 2-4-302, MCA, do not apply.

10. With regard to the requirements of 2-4-111, MCA, the department has determined that the amendment of the above-referenced rules will significantly and directly impact small businesses.

Reviewed by: BOARD OF ENVIRONMENTAL REVIEW

/s/ John F. North BY: */s/ Robin Shropshire*
JOHN F. NORTH ROBIN SHROPSHIRE
Rule Reviewer Chairman

Certified to the Secretary of State, February 3, 2014.